



Distance learning in the arctic wilderness of northeast Greenland

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DISTANCE LEARNING IN THE ARCTIC WILDERNESS OF NORTH EAST GREENLAND

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Introduction

In one of the most remote areas in the world, North East Greenland, the Danish Sirius Sledge Patrol conducts long-range reconnaissance patrolling and enforces Danish sovereignty. Patrolling is done in pairs of two soldiers and a team of sled dogs, trips lasting 4 months or more, covering 3-4000km and without outside human contact. Each year seven new soldiers are selected to undergo seven months training before being sent off to Greenland (Vanggaard 2001). This pre-school training includes a basic veterinary course in which the students learn how to examine and treat their dogs both medically and - to some extent - surgically.

The veterinary course is conducted by The Department of Small Animal Clinical Sciences, Faculty of Life Sciences, University of Copenhagen and is an intense four day practical and theoretical course. Subjects in the course include:

- Anatomy
- Clinical examination
- Reproduction (mating, pregnancy, giving birth)
- Surgery (suturing, wound treatment, fractures)
- Dental examination and tooth extraction
- Internal medicine
- First aid and emergency treatment
- Nutrition and feeding routines

Most pre-school students have no prior experience with veterinary medicine, and the material can seem somewhat overwhelming. As the trained skills will not be used for at least six months following the course, they are easily forgotten and may be difficult to recall when an emergency situation occurs. For this reason, it was decided to provide the Sirius Sledge Patrol and the pre-school with material for mobile/distance learning as an addition to the practical course. This way the soldiers would have an opportunity to repeat the sessions and review and practise the skills at their own time and setting. Effective

acquisition of a skill requires practise and repetition (Ericsson 2004; Kneebone and ApSimon 2001; Kneebone and Baillie 2008; Kneebone 1999; Reznick and MacRae 2006; Scalese and Isenberg 2005) and the new learning material would give the soldiers such opportunity.

Materials and Methods

In the summer of 2010 a group of veterinarians from The Department of Small Animal Clinical Sciences went to visit the 'Sirius Sledge Patrol' in Daneborg (74 degrees N), Greenland. Daneborg is Sirius' headquarters, and is the summer residence of the approximately 80 sled dogs that belongs to the patrol. During the stay, video-filming was done on location, illustrating a range of different situations related to handling, examining and treating the sled dogs. This material, along with videos filmed by soldiers on their patrols, was edited and narrated by a veterinarian back in Denmark by using Pinnacle Studio version 11.



Results

Twelve narrated videos were produced, illustrating the following subjects:

- Handling of the dog
- Clinical Examination of the dog
- Examination of the teeth
- Preparation for surgery
- Treatment of a wounded dog - on expedition
- Suturing a superficial wound
- Suturing a paw
- First aid/resuscitation
- Feeding the dogs
- Bandaging
- Different suture techniques (two videos)

As an example 'Treatment of the wounded dog – on expedition' demonstrates 1) how to bring the dog into the tent, making sure it does not get hypothermia while anaesthetised, 2) how to rinse, clip and suture the wound without exposing too much skin to the cold, 3) how to keep asepsis in mind, and 4) how to keep notes on the treatment. The teaching material was used during the veterinary pre-school course at Copenhagen University in January 2011, and the soldiers' evaluation showed a widespread satisfaction with the narrated videos. They particularly mentioned that it was helpful and motivating to see the actual setting and watching active Sirius soldiers performing the skills on location.



Discussion and Conclusion

The narrated videos constitute the new mobile teaching material that was implemented in the pre-school of 2011. The videos are part of the veterinary course at the Department of Small Animal Clinical Sciences and a number of DVD's will also be delivered at Daneborg, Greenland, for the new soldiers to use while stationed there. Evaluation of the usefulness of the material on location has not yet been conducted, as the soldiers/students of 2011 are still in pre-school and will be going to Greenland in July 2011. It would be optimum to be able to download the teaching material directly in Daneborg and to computers/cell phones brought on the patrols, but the present internet connection is not sufficient for this to work smoothly. It is hoped that the new mobile learning material will be a useful tool



during and after the training of soldiers in the Sirius Sledge Patrol, that are on their way to the desolate areas of North East Greenland. The implementation will now allow the soldiers to boost their memories in relation to veterinary procedures whenever needed and repeat and practise the skills as often as time allows.

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